



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09/902,536

07/11/2001

Torbjorn Albertsson

66291-320-5

6876

7590

05/30/2006

Eric J. Franklin  
Venable LLP  
Post Office Box 34385  
Washington, DC 20043-9998

EXAMINER

HANSEN, COLBY M

ART UNIT

PAPER NUMBER

3682

DATE MAILED: 05/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.



UNITED STATES PATENT AND TRADEMARK OFFICE

---

Commissioner for Patents  
United States Patent and Trademark Office  
P.O. Box 1450  
Alexandria, VA 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

**MAILED**

**MAY 30 2006**

**GROUP 3600**

**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 09/902,536  
Filing Date: July 11, 2001  
Appellant(s): ALBERTSSON ET AL.

\_\_\_\_\_  
Eric J. Franklin, Reg. No. 37,134  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 5/1/2006 appealing from the Office action mailed 12/17/2003.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

4,529,352	Suzuki et al.	7-1985
5,593,265	Kizer	1-1997
5,606,235	Mauletti	2-1997

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

The following ground(s) of rejection are applicable to the appealed claims:

Claims 2-6 and 11 rejected under 35 U.S.C. 103. This rejection is set forth in a prior Office Action, mailed on 12/17/2003.

Claims 2-4, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki et al. (U.S. Pat. 4,529,352) in view of Mauletti (U.S. Pat. 5,606,235).

Suzuki et al. (U.S. Pat. 4,529,352) discloses an anthropomorphic manipulator, comprising an upper arm 13 which comprises a rear arm part (half of arm 13 farthest working tool 2) and which further comprises a front arm part (half of arm 13 nearest working tool 2) having a longitudinal axis, cabling 5 extending along the said arm parts, a supporting device 3a, 4 for guiding and holding the cabling in a stretched condition at the front arm part, the supporting device comprising a supporting arm 4 rotatably arranged on the rear arm part and an auxiliary arm arranged at the front arm part 3a.

However, Suzuki et al (US Pat. 4,529,35) does not disclose the rear arm being able to rotate about its longitudinal axis at an intermediate point.

Mauletti (US Pat. 5,606,235) discloses an anthropomorphic manipulator with upper arm having a front portion 12 and rear portion 11 wherein the front arm part is journaled in bearings in the rear arm part for relative rotation a rear arm.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have utilized the immediate rotating portion of the Mauletti (US Pat. 5,606,235) arm within Suzuki et al (US Pat. 4,529,35) so as to allow for increased position and degrees of freedom for the end effector of Suzuki et al (US Pat. 4,529,35).

Claims 5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki et al. ('352) in view of Mauletti (US Pat. 5,606,235) as applied to claims 2-4 and 11 above, and further in view of Kizer (US Pat. 5,593,265).

Suzuki et al. ('352) discloses the claimed invention except for a spiral spring biaser for the support arm, or said spiral spring having a housing.

Kizer (US Pat. 5,593,265) discloses a spiral spring for biasing a support member relative to a base, said spiral spring housed in a container.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have utilized the spiral spring of Kizer (US Pat. 5,593,265) within the supporting device of Suzuki et al. ('352) as an obvious variant to the leaf spring 36.

***(10) Response to Argument***

Applicant argues that Suzuki et al. (U.S. Pat. 4,529,352) does not disclose a "device for holding and stretching the cabling such that loosely hanging loops are avoided, and stretching the

Art Unit: 3682

cabling such that it does not conflict with objects in the working range of the robot". Firstly, Examiner disagrees with applicant's assessment that Suzuki et al. (U.S. Pat. 4,529,352) does not disclose a device for holding and stretching the cabling while keeping the cabling out of the working range of the robot. Given the extremely broad and ubiquitous terminology of "holding" and "stretching", Suzuki et al. (U.S. Pat. 4,529,352) certainly discloses said properties during the normal use of the robot. Secondly, Examiner contends that nowhere within the claim language is the limitation set forth that the cabling mounted such as to avoid loosely hanging loops. As such, applicant's argument that Suzuki et al. (U.S. Pat. 4,529,352) is without said function is moot.

Applicant argues that Suzuki et al. (U.S. Pat. 4,529,352) is a completely different robot from that claimed by the applicant and therefore applicant's invention is novel. Examiner finds the robots of applicant and Suzuki et al. (U.S. Pat. 4,529,352) to be analogous, but concedes they do not function identically. That is why Examiner, upon receiving newly added claim 11 on 9/24/2003, changed the rejection to modify Suzuki et al. (U.S. Pat. 4,529,352) in view Mauletti (US Pat. 5,606,235). Therefore applicant's argument that applicant's invention is novel in view Suzuki et al. (U.S. Pat. 4,529,352) is moot, as the invention stands rejected (claims 11, and 2-4) under 35 U.S.C. 103 (a) Suzuki et al. (U.S. Pat. 4,529,352) in view of Mauletti (US Pat. 5,606,235).

Applicant argues that Suzuki et al. (U.S. Pat. 4,529,352) discloses a "slacked" holding of the cable and therefore does not fulfill the limitations set forth in claim 11. Examiner disagrees, as nowhere within claim 11 does it stipulate that the device for holding and stretching the cabling" cannot have slack. As such, applicant's argument has no basis upon the claim language or allowability.

Art Unit: 3682

Finally, applicant argues that “the Examiner has failed to meet the burden set forth in MPEP 2141 for establishing a prima facie case of obviousness in concluding that the combined teachings of Suzuki et al. (U.S. Pat. 4,529,352) and Mauletti (US Pat. 5,606,235), teach or suggest each feature of claims 2-6 and 11”. Examiner disagrees, for there is certainly not only a motivation to modify the analogous inventions Suzuki et al. (U.S. Pat. 4,529,352) by the teaching of Mauletti (US Pat. 5,606,235), but also the reasonable expectation of success.

Regarding the motivation to modify Suzuki et al. (U.S. Pat. 4,529,352) in view of Mauletti (US Pat. 5,606,235), it is the position of the Examiner that utilizing the structural relationship of Mauletti (US Pat. 5,606,235), that the upper arm has front 12 and rear 11 portions that are longitudinally rotatable relative to one another within Suzuki et al. (U.S. Pat. 4,529,352) would be obvious to give the end effector (e.g. welder, gripper, probe, etc.) of Suzuki et al. (U.S. Pat. 4,529,352) increased freedom of movement and ability to work on a product with greater flexibility.

Regarding the reasonable expectation of success, it is the position of the examiner that Suzuki et al. (U.S. Pat. 4,529,352) and Mauletti (US Pat. 5,606,235) are analogous arts specifically pointing towards robotics that would be obvious to combine depending upon the motivation.

#### **(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Application/Control Number: 09/902,536

Page 7

Art Unit: 3682

Respectfully submitted,

Colby Hansen

A handwritten signature in black ink, appearing to be 'Colby Hansen', written over the printed name.

Conferees:

Richard Ridley

A handwritten signature in black ink, appearing to be 'Richard Ridley', written next to the printed name.

David Fenstermacher

A handwritten signature in black ink, appearing to be 'David Fenstermacher', written next to the printed name.





## UNITED STATES DEPARTMENT OF COMMERCE

## U.S. Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

APPLICATION NO./ CONTROL NO.	FILING DATE	FIRST NAMED INVENTOR / PATENT IN REEXAMINATION	ATTORNEY DOCKET NO.
---------------------------------	-------------	---	---------------------

09/902,536

7/11/2001

ALBERTSSON

66291-320-5

EXAMINER HANSEN

ART UNIT 3682

PAPER Hansen

05112006

DATE MAILED:

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner for Patents

On August 18, 2005, Examiner filed a response with an incorrect date of December 29, 2004 attributed to the reply brief. The correct filing date of the reply brief is February 28, 2005. As a point of clarification Examiner recants the communication of August 18, 2005 and hereby acknowledges the receipt and entry of the reply brief of February 28, 2005.